

CONSOLIDATED INFORMATION TECHNOLOGY SERVICES TASK ASSIGNMENT (TA)

1. **TITLE:** (D306) Project Management Support for the Hypersonic Airbreathing Propulsion Branch - HIFiRE Flight 2 Payload Activities

TA No:	237	
Task Area Monitor:	Alternate Task Area Monitor:	None
NASA POC:	Software Control Class:	Low Control
Type of Task:	Recurring Task	

2. BACKGROUND

The Hypersonic Airbreathing Propulsion Branch in the Aerodynamics, Aerothermodynamics, and Acoustics Competency at the NASA Langley Research Center performs multidisciplinary research to develop advanced technology for hypersonic airbreathing propulsion systems for aerospace vehicles. The focus is on airframe-integrated engine concepts having high performance over a wide range of flight Mach numbers. Synergistic research provides integrated multidisciplinary methods for design and analysis with both fundamental physics and phenomenological models including effects of turbulence, mixing, finite-rate reactions, fuel injection, and geometry on ignition, combustion, and thrust performance across the speed regime from takeoff to orbital velocity. Innovative concepts for vehicle-integrated airbreathing-engines are developed and evaluated. Complete airframe-engine performance characteristics for both ground-test and flight-test conditions are predicted with experimentally verified analysis methods. Innovative experimental techniques, diagnostics, and facilities for airframe-integrated engines are developed. Tests of complete subscale and large scale engines are made to assess and to improve integrated engine and aero-thermo-structural performance.

3. OBJECTIVE

The primary objective of this task is to provide the specialized project management/scheduling support necessary to:

- ? Capture and document resource utilization and work flow
- ? Ensure the ideal resource levels are established at the beginning of a job and maintained throughout the life of a project
- ? Ensure that the development team and customer will know how a project is progressing and when it will be finished
- ? Analyze resource utilization and report trends to management
- ? Use Earned Value (EV) techniques to monitor schedule and cost
- ? Provide risk identification and assessment

4. GENERAL IT SUPPORT SERVICES

Services Specified Through Exhibit A:
N/A

General IT Support Services Performance Metrics

Performance Standard: Assigned activities are accomplished satisfactorily and within the pre-determined schedule.

Performance Metrics:

- Exceeds: All assigned activities are accomplished satisfactorily on or ahead of the pre-determined schedule. Suggestions are made and acted on that lead to advancements towards the goals of the projects.
- Meets: Any deficiencies or slippage in one or more activities are offset by improvements or gains in other activities.
- Fails: Deficiencies or slippage in assigned activities have had a detrimental effect on the objectives of the project.

5. SYSTEM AND APPLICATION DEVELOPMENT SERVICES

None required.

6. WORK-AREA SPECIFIC SERVICES

None required.

7. Exhibit A

None required.

8. SPECIAL SECURITY REQUIREMENTS

None required.

9. SOFTWARE ENGINEERING PROCESS REQUIREMENTS

Software engineering tools shall be used to ensure the task is on track and within budget. The customer shall be notified if any cost or schedule slip is expected.

10. JOINT REVIEW SCHEDULE

The TAM and the contractor shall have periodic meetings to review work progress.

11. PERIOD OF PERFORMANCE

This TA is effective from 07/13/09 to 04/27/10

12. TECHNICAL PERFORMANCE RATING

In evaluating Technical Performance, quality and timeliness shall be rated as follows:

Quality: 80% Timeliness: 20%

13. RESPONSE REQUIREMENTS

This Task Plan shall address the contractor's specific work plans, associated estimated labor hours, cost and schedule.

14. FUNDING INFORMATION

Funding last submitted on 07/09/2009.

15. MILESTONES

None required.

16. DELIVERABLES

Number	Deliverable Item	Deliverable Schedule
1	HIFiRE Flight 2 Payload schedule status report.	Delivered as requested
2	Schedule-related project management reporting such as: logic diagrams, resource utilization reports, and risk assessment reports.	Delivered as requested

17. FILE ATTACHMENTS

None.